Quality Control

Work Order January-21-13 8:5				*9!	5856*	•			, - · · · · · ; - · · · · · · · · · · · ·		Page 1
Revision ID:	972 shing		,	Accept	*N90	<b>0040</b>	100	<b>)*</b> s	Setup Star Stop	171	S1*
Start Date: 1/3 Required Date: 1/3 Reference:		Qty: 24.00 Qty: 24.00	*24* *24*		Cust Iten Custome						. 7/
	rocess Plan:	P	Date/3-0/-2-			Date:		F	Run Star Stop	1/1	R1* R2*
Sequence ID/ Work Center ID	Operati Descrip			Set Up/ Run Hou	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nb		· · · · · · · · · · · · · · · · · ·						~~~		
D2972	Rev A1										
*1 \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	nail	Memo		0.00	Af 13-01-30 13-1-29			24	Ø		DAS 13 289
*110 *11 <b>0</b> *	QC2- Ins		achine FAI/FAIB	0.00	St13-01-30			24	D		(DA) (13)
Quality Control		Memo		V.00							
120 *120*	QC8- Ins	spect parts - seco	nd check	0.00	3-2	. \		24	d		04 28
QC	·	Memo		0.00				2			

NCR:	NCR: Yes / No WORKORDER NON-CONFORMANCE / UPDATE													
											QA Closed:	Date	:	
Work Ord	er:					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No						Rework Skid-tube Crosstube  Scrap Machining Small Fab  Use-as-is Thermoforming Finishing  Work Order Update Large Fab Composite		Small Fab Finishing	Pro Rec/Sto	Engineering Quality Other				
Root					Descri	ption of work order update	Π	Initial	Act	ion	Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Descr	iption	Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved														
						F	AUL	LT CATE	3ORY					
Landi		Bending Centre No Cracks Crushed/Cuffs Heat Trea Inspection Ripples in	Crimped at n Strip in i Bend	Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/Unance led	Jnclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
		Torque W	raves in t	.xtru5101	·	Drawing	L	Jour or c	Calibration					

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID 95856 January-21-13 8:56:54 AM Item ID: D2972 Accept Setup Start \*N900040100\* **Revision ID:** Bushing Item Name: \*24\* **Start Date:** 1/16/13 Start Qty: 24.00 **Cust Item ID:** Req'd Oty: 24.00 Required Date: 1/31/13 **Customer:** Reference: Run Process Plan: **Tooling:** Approvals: Date: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Set Up/ **Operation** Tool ID Tool # Plan Accept Reject Reject Work Center ID Description **Run Hours** Code Qty **Qty** Number 130 0.00 PhG St 022 \*120\* 24

140

QC21- Final Inspection - Work Order Release

0.00

0.00

\*140\*

Packaging

Packaging

QC Quality Control

Memo

Memo

0.00

MB-02/

Page 2

Insp.

Stamp

NCR:	Yes	/ No			_	WORK ORDER NON-CONFORMANCE / UPDATE								
											QA Closed:	Date	•	
Work Ord	er:					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
	-					Rework		Skid-tube Crosst	ube	]	Water Jet	Engineering		
Part I	Part No					Scrap		Machining Small		Pro	d. Eng. Coor.	Quality		
						Use-as-is	]	Therm	oforming Finish	ning	Rec/Sto	e/Packaging	Other	
NCR I	No.					Work Order Update	]		Large Fab Compo	site	Supplier			
Root					Descri	ption of work order update	Π	Initial	Action		Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector	
Doc/Data	Ш							;						
Equip/Tooling	Ш													
Operator	Щ		1											
Material	Щ													
Setup	Ш													
Other			İ											
Process	Щ													
Supplier	Ш				·			!						
Training	Ш													
Unapproved			<u> </u>				<u>.</u>	<del></del>		,				
							AUL	T CATE	GORY					
Landi	$\overline{}$					General	_	7			7		<b>-</b>	
	$\vdash$	Bending			ļ	Bend		Grain			Ovalized	ļ	Pressure/Forced	
	-	Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa			Over/Under	tolerance	Temperature/Cure	
	Н	Cracks				Broken/Damaged		1	ori Incomplete		Part Incorre	<u> </u>	Weld	
	-	Crushed/0	Crimped.			Burrs		4	ions Incomplete/Unclear	L	Part Lost/M	issing	Wrong Stock Pulled	
	Ш	Cuffs				Contamination		Mainte		<u> </u>	Part Moved			
	Ш	Heat Trea	it			Countersink	_	Mislabe	led		Positioned V		_	
	Ш	Inspection	n Strip in	Tube		Cut Too Short		Misread			Power Loss/	Surge	Other	
Ripples in Bend		Drill Holes		Offset										

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

## **Picklist Print**

January-21-13 8:56:53 AM

Page 1

Work Order ID:

95856

Parent Item:

D2972

Parent Item Name:

Bushing

**Start Date: 1/16/13** 

Required Date: 1/31/13

Start Qty: 24.00

Required Qty: 24.00

Comments:

IPP A00.05.18New IssueEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R1.000 303 Round Bar 1.00		Purchased	No				f	45.5589	3	.015	SS	13-01	÷30
				<b>Location</b>		Loc Qty	Lo	c Code					
				MAT028		45.55891579							~ ^ ^
				1208	666	1.4			<del></del>		, >		9 <u>13</u>
				1210	70	6.63031579					/ 5 -	-/-2	چږ ۲
				1212	82	0.9							0-03
				1217	28	3.034							
				1223	86	14.926							
				1232	94	18.6686			3.0	015			

				DQA:
NCR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE	

NCR: Y	es / No				WORK ORDER NON-O	CONFOR	MANCE / UF	DATE	QA Closed:	Date	2:
Work Orde	r·				DISPOSITION			AGAINST DE	PARTMENT,	/PROCESS	
Part No					Rework Scrap Use-as-is Work Order Update	Ther	Skid-tube Crosstub  Machining Small Fa  Thermoforming Finishin  Large Fab Composit		Water Je Prod. Eng. Coor Rec/Store/Packaging Supplie		Engineering Quality Other
						1 1 1				<u> </u>	
Root	Data	Cton			ption of work order update or Non-conformance	Initial		ction	Sign &	Verification	OC Inspector
Cause Doc/Data	Date	Step	Qty		or Non-conformance	Chief En	g Desc	cription	Date	verification	QC Inspector
equip/Tooling	=										
Operator	-			,							
Material		İ									
Setup											
Other											
Process											
Supplier							1				
Training									<u>.</u>		
Jnapproved							1				
						AULT CAT	EGORY				
Landin T	g Gear				General				1	г	
	Bending	_			Bend	Grain		-	Ovalized		Pressure/Forced
}	Centre No	ot Conce	ntric to (	<sup>D/S</sup>  -	BOM/Route	Hardv		-	Over/Under	F	Temperature/Cure
-	Cracks	C-:		-	Broken/Damaged	<del></del>	tion Incomplete	(1) 1	Part Incorre		Weld
Crushed/Crimped.		Burrs	<b></b>	ctions Incomplete tenance	/Unclear	Part Lost/M Part Moved		Wrong Stock Pulled			
Cuffs Heat Treat		Contamination Countersink	Mislal			Positioned \					
ł	Inspection		Tube	<u> </u>	Cut Too Short	Misre		-	Positioned (		Other
ŀ	Ripples in	•	Tube	<u> </u>	Drill Holes	Offset		<u></u>	J. OWEL FOSS	Juige	Totilei
ŀ	Torque W		xtrusion	, <b>⊢</b>	Drawing	<del></del>	f Calibration			200 11 2	
-	Turning S			·  -	Finish	<b>⊢</b>	f Sequence				
Wave/Twist in Tube			Folio		de Dimensions						

Date: \_

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DART AEROSPACE LTD	Work Order:	95854
Description: Bushing	Part Number:	D2972
Inspection Dwg: D2972 Rev: A		Page 1 of 1

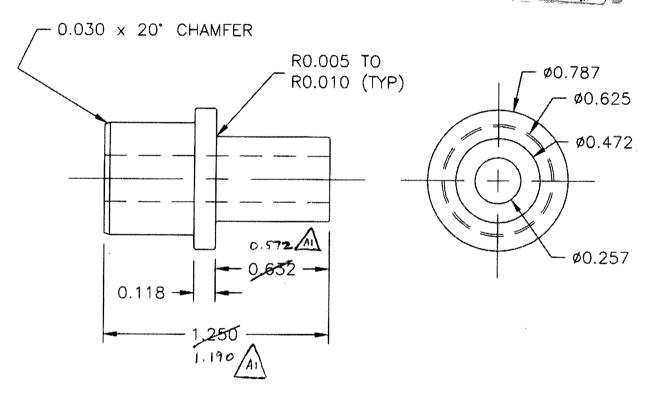
	x	First Artic	le	Proto	otype		
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Con	nments
0.030 x 20°	+/-0.010 x +/-0.5°	0301200			77-4	Ve	16
R0.005 - 0.010	N/A	R.008					<b>—</b>
0.572	+/-0.010	572					
0.118	+/-0.010	115					
1.190	+/-0.010	1.192					
Ø0.787	+/-0.010	- 7 865					
Ø0.625	+/-0.010	6,625					\
Ø0.472	+/-0.010	0,421	//				
Ø0.257	+0.006/-0.001	-258			\		
Measured by:	D40 273	Audited by:	()A (		Prototype A	oproval:	N/A
	3-1-29	Date:	13.2	-		Date:	N/A





DESIGN	DRAWN BY	DART	AEROSPACE BELLEVUE, WA	USA, INC.
CHECKED	APPROVED	DRAWING NO.		REV. A SHEET 1 OF 1
DATE		TITLE		SCALE
 00.03.	13	BUSHING		2:1
Α	00.03.13	NEW ISSU	JE	

95854 P/13-01-22



MATERIAL: AISI 303 STAINLESS STEEL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED RADIUS ALL INSIDE EDGES 0.005 TO 0.010 BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020 ALL DIMENSIONS ARE IN INCHES

RETUCE LENGTH OF BUSHING AP 01-03.12

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